REMARKS

Claims 1-12 remain pending in the application.

The Examiner continues to frustrate the Applicant with yet another rejection of claims 1-12 based on Chen alone, as given on September 24, 2002. The Applicant amended claims 1-4 in the response to the Office Action issued on September 24, 2002 to recite time domain head-related transfer functions. The Examiner acknowledged in the rejection issued July 28, 2003 that the recited **time domain** head-related transfer functions were not disclosed or suggested by Chen, but relied on U.S. Patent No. 5,659,619 to Abel to allegedly make up for the deficiency in Chen. Applicant filed an Appeal Brief on November 18, 2003 in response to the rejection of claims 1-9 over Chen in view of Abel. The Examiner withdrew the rejection based on Chen in view of Abel, but now reverses the previous acknowledgement that Chen fails to disclose or suggest use of **time domain** head-related transfer functions. The Applicant respectfully requests good faith and consistency throughout prosecution.

Claims 1-12 over Chen

In the Office Action, claims 1-12 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Chen et al., U.S. Patent No. 5,500,900 ("Chen"). The Applicant respectfully traverses the rejection.

Claims 1-4 recite a plurality of spatial characteristic functions derived from **time domain** head-related transfer functions and adaptively combined with a plurality of Eigen filters. Claims 9 and 10 recite projecting measured **time domain** head-related transfer functions back to at least one principal Eigen vector to create spatial characteristic sets.

The Examiner acknowledges that Chen fails to disclose deriving a plurality of spatial characteristic functions from **time domain HRTF** (see Office Action, page 3). However, the Examiner alleges that since Chen discloses equation (1) that can be expressed in a time domain, it would have been obvious to express in time domain **all of the remaining equations** that are calculated in impulse response forms (see Office Action, page 3). The motivation to express in time domain **all of the remaining equations** is to provide shorter processing

time, since implementations and operation in frequency domain transfer functions are often slow (see Office Action, page 3).

"The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious **unless the prior art suggested the desirability of the modification**." In re Fritch, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). As the Examiner correctly acknowledges, Chen discloses the desirability of modification of the disclosed filter components as represented by equation (1), i.e., FETF, in the time domain "without departing from the scope of the invention" (col. 6, lines 56-60). Thus, Chen **only** suggests modifying FETF from a frequency domain to a time domain. None of the Examiner's cited prior art, much less Chen, suggest modifying Chen's head-related transfer functions from a frequency domain to a **time domain**, as recited by claims 1-4, 9 and 10.

Moreover, as discussed above, Chen discloses modifying FETF from a frequency domain to a time domain without departing from the scope of the invention. Chen **only** teaches modification of a HRTF **without departing from the scope of the invention**, with no such assertion for **all** of the disclosed transfer functions. The piecemeal application of Chen is improper: the reference must be considered in its entirety, i.e., as a whole, including portions that would **lead away** from the claimed invention (see MPEP 2141.02 at page 2100-95 (Rev. 1, Feb. 2000) (citing W.L. Gore & Associates, Inc. v. Garlock, Inc., 22 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984))). Thus, Chen suggests that any modification other than to a FETF **is** a departure from the scope of the invention, contrary to the Examiner assertion that modifying Chen would have been obvious at the time of the invention.

Furthermore, claims 1-4 recite a plurality of spatial characteristic functions **derived from** time domain head-related transfer functions and adaptively combined with a plurality of Eigen filters. Claims 5-8 recite a plurality of spatial characteristic functions **derived from** head-related impulse responses and adapted to be respectively combined with a plurality of Eigen filters. Claims 9 and 10 recite projecting measured time domain head-related transfer functions back to at least one principal Eigen vector **to create** spatial characteristic sets.

Claims 11 and 12 recite back-projecting measured head-related impulse responses to at least one principal Eigen vector **to create** spatial characteristic sets.

Chen discloses utilizing a spline model for generating spatial transformation characteristic functions (col. 5, lines 5-28). Spatial transformation characteristic functions derived from a spline model does **NOT** disclose **or suggest** a plurality of spatial characteristic functions derived from head-related transfer functions, much less a plurality of spatial characteristic functions derived from time domain head-related transfer functions to be adaptively combined with a plurality of Eigen filters, as recited by claims 1-8.

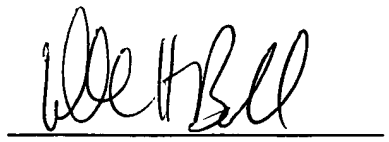
Moreover, utilizing a spline model to create spatial transformation characteristic functions does **NOT** disclose **or suggest** projecting measured time domain head-related transfer functions back to at least one principal Eigen vector **to create** spatial characteristic sets; and back-projecting measured head-related impulse responses to at least one principal Eigen vector **to create** spatial characteristic sets, as recited by claims 9-12.

Accordingly, for at least all the above reasons, claims 1-12 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,



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